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EXPERIMENTS IN CORN GROWING.

Bulletin 32 of the Missouri Experiment Station, by Director H. J. Waters and Mr. Connor, reports the results of three years' experiments in corn growing, of which the following is a brief summary. The land used for the experiments is limestone clay loam of moderate fertility.

Varieties—Golden Beauty led in yield for three years, followed closely by Leaming. Both are medium maturing yellow Dents. Among the best white varieties tested are St. Charles White, Chester County Mammoth and Pisa King, none of which matured on the experimental grounds in less than 130 days.

Manures—A number of tests of different kinds of barnyard manures and of different methods of applying them showed a great gain from carefully saving the liquid manure; that horse manure produced more corn than cattle manure; that ten loads of fresh manure gave an increase of 19 bushels per acre.

Subsoiling failed to give an increased yield, even on tile drained land.

Cultivation—Shallow and level culture gave larger crops each year than were obtained from deep tillage. The

gain from this method ranged from 2 to 14 bushels per acre. In 1890 nearly one third more corn was produced on the land tilled shallow than on that receiving the ordinary deep tillage. An average of the three years' work shows a gain from this source of 9.6 bushels per acre, or 17.9 per cent. These results are corroborated by similar experiments in Ohio, Illinois, Utah, Pennsylvania, New York and other states, besides the confirmation given shallow tillage by a large number of experienced and successful corn growers in Missouri.

Effect of Drainage—On stiff clay upland, with fair surface drainage, the increase in yield of corn, sugar beets and rutabagas from tile draining was not sufficient to warrant the expense of putting in the tile. The land was made somewhat dryer by draining, as shown by weekly determinations of the water, but the difference is too slight to materially affect the crop. Other matters relating to corn growing, such as deep and shallow breaking, thickness of planting, etc., are covered in this report.

Full information concerning the results of these experiments may be had free by writing the Director of the Experiment Station, Columbia, Mo., requesting a copy of Bulletin 32.